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Let me begin by giving the briefest description of what a GIS is (which is far easier to show than describe). A GIS is a way to digitally display geography – computer drawings of things on the ground like you see on a map. A user can attach information to those drawings by linking the drawings and spreadsheets together and keeping all that information in a system of computers, networks, software and users.

For municipal GIS most towns start with a parcel base where assessor tax maps and their assessor database information are linked together on a map. As part of the CT GIS Council Storm Assessment working group I gathered information about the state of GIS in CT and found that 149 towns showed some type of parcel layer, even if it was an AutoCAD-based parcel map in a Plan of Conservation and Development. 2.7 million CT residents live in a town with their GIS data displayed online¹ either through a regional site, their town's own website or with GIS-generated PDF maps available.

As with any investment by a municipality there is always some type of cost-benefit analysis that factors in a return on the investment and the economy of scale needed to maximize that return. GIS is expensive, especially its start-up costs, but it has proven itself over and over to be an effective tool for decision makers and for people seeking information.

One of most time consuming, expensive parts of a GIS is collecting data. Around 2004 Northeast Utilities contracted a private company called Osmose to collect the GPS locations of utility poles across New England. To pay for this kind of project, requiring thousands of workers to be supplied with trucks, fuel, GPS and training the utility companies have to sell electricity at a higher price than it costs them to provide it. CT rate payers provided the funds for that project and similar ones.

Yet when a government agency calls the utility company and requests a subset of that data for their town's GIS they are consistently refused. Town governments would request pole data for a number of reasons.

Many towns have installed fiber optic cable to improve network connectivity and have to map out their infrastructure themselves. Chapter 283, section 16-233 of the CT State Statutes grant municipal gain space on each utility pole or underground communications duct yet the owners of those poles will not provide their locations for use in municipal GIS.

Utility poles are needed to conduct land-use planning studies for "smart-growth" development projects, design/aesthetics projects and sign enforcement. State law prohibits any signs from being attached to utility poles and enforcement is placed with the local tree warden. Tree wardens are required to be appointed by the selectmen of each town within 30 days of an election.² Having a map of poles would make it very simple to track enforcement and visualize patterns.

¹ Each town website searched for GIS data, tallied with 2010 Census SF1 population data

² <http://www.cga.ct.gov/2011/pub/chap451.htm>

Next the wastewater department of each town creates drawings every time they issue a permit or do a dig for a repair. Pole locations are often a point of reference in these drawings.

Similarly, the engineering department will receive survey drawings and notes, as-builts and development plans and may even conduct their own surveys. Utility poles are often referenced on these plans and can be used to help translate those paper drawings into GIS data. Utility poles are also helpful in taking old hand drawn plans and transcribing that data into a GIS.

Emergency responders look for utility pole data for a number of reasons. When a pole is damaged in an accident a first responder approaches the pole, if it's safe to do so, to get the number and owner of the pole. The officer provides that information to the dispatcher who then has to contact the utility to begin the process of repair. Pole information is also used in accident reconstruction reports and maps. Proper street lighting prevents pedestrian fatalities and reduces crime and pole data – including light information – is needed to conduct a lighting study which is a very simple task in a GIS but arduous if conducted on foot. The town of Stonington (pop approx 19,000) spent \$8000 to collect an inventory of just street lights.

Then there is the case of a storm event like those we experienced last fall. Pole data in local EOC's and in the hands of public works, police and fire personnel would have streamlined communication, increased response efficiency and improved restoration prioritization.

For a town to collect the pole data that the utility companies already have they first need to purchase a GPS. It would cost \$5000 to purchase a unit as accurate as one used by Osmose, the Trimble XT. To take that data and convert it for use in a GIS requires post-processing software that costs about \$3500. Then there is time. Poles are roughly 100-150 feet apart and it can take an hour to cover half a mile. This can add up to a tremendous cost for local government which does not have the benefit of generating profits.

Despite the two storms and costs of an impending merger, in 2011 Northeast Utilities earned \$395 million dollars in profits, about \$33 million a month.³ It is my opinion that since CT customers have paid for pole data to be collected with their electricity bills and that a portion of that data would be very useful for their government to use then government should be able to access that data. Duplicating that effort and incurring that cost redundancy doesn't make fiscal sense.

Thank you.

³ <http://www.hartfordbusiness.com/news22803.html>